

In the Claims

Please amend Claims 1, 11, 19 and 24. Amendments to the claims are indicated in the attached "Marked Up Version of Amendments" (pages i - ii).

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- B1 1. (Amended) A method of producing purified caveolae, comprising the step of
subjecting a sample of interest comprising plasma membranes to an immunoisolation
method to separate caveolae from other materials in the sample of interest, wherein
the immunoisolation method comprises incubating the sample of interest with a
monoclonal antibody that is specific for caveolin and which binds to oligomerized
caveolin in its native state as an oligomeric structural cage surrounding intact
caveolae, and separating caveolae that are bound to the antibody from other materials
in the sample of interest, thereby producing purified caveolae.
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- B2 11. (Amended) A method of producing purified caveolae, comprising the steps of:
providing a sample of interest comprising plasma membranes;
a) subjecting the sample of interest to a membrane disruption method,
thereby producing a disrupted plasma membrane sample;
b) subjecting the disrupted plasma membrane sample to an
immunoisolation method to separate caveolae from other materials in
the disrupted plasma membrane sample, wherein the immunoisolation
method comprises incubating the initial fractions with a monoclonal
antibody that is specific for caveolin and which binds to oligomerized
caveolin in its native state as an oligomeric structural cage
surrounding intact caveolae, and separating caveolae that are bound to
the antibody from other materials in the disrupted plasma membrane
sample,
thereby producing purified caveolae.
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- B3 19. (Amended) A method of producing purified caveolae, comprising the steps of:
a) providing a sample of interest comprising plasma membranes;

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- b) subjecting the sample of interest to a membrane disruption method, thereby producing a disrupted plasma membrane sample;
 - c) subjecting the disrupted plasma membrane sample to a separation method based on density, thereby producing fractions of the disrupted plasma membrane sample, and collecting initial fractions of the disrupted plasma membrane sample;
 - d) subjecting the initial fractions of the disrupted plasma membrane sample to an immunoisolation method to separate caveolae from the initial fractions, wherein the immunoisolation method comprises incubating the initial fractions with a monoclonal antibody that is specific for caveolin and which binds to oligomerized caveolin in its native state as an oligomeric structural cage surrounding intact caveolae, and separating caveolae that are bound to the antibody from other materials in the initial fractions,
- thereby producing purified caveolae.

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24.

(Amended) A method of producing purified caveolae, comprising the steps of:

- a) providing a sample of plasma membranes from cells of interest;
- b) subjecting the sample of plasma membranes to a membrane disruption method, thereby producing a disrupted plasma membrane sample;
- c) subjecting the disrupted plasma membrane sample to a separation method based on density, thereby producing fractions of the disrupted plasma membrane sample, and collecting initial fractions of the disrupted plasma membrane sample;
- d) subjecting the initial fractions of the disrupted plasma membrane sample to an immunoisolation method to separate caveolae from the initial fractions, wherein the immunoisolation method comprises incubating the initial fractions with a monoclonal antibody that is specific for caveolin and which binds to oligomerized caveolin in its native state as an oligomeric structural cage surrounding intact caveolae, for a time period that is less than approximately 2 hours,